

## **Minutes of CAL s/w telecon**

J. Eric Grove

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### **Optimizing correction factors for Run 138**

**Grove**

I've completed the layer-by-layer corrections for run 138. The corrections are an additional quadratic function in Range 2 (HEX8) in one log in layers 1-7 and in Range 1 (LE) in one log in layer 0, the top layer. I've reconstructed energies by both profiling and correlation.

*Action:*

1. (Grove) *Distribute optimized corrections for Run 138.*

### **Proton response**

**all**

During the week just ended, Eduardo agreed to provide a list of proton runs to study. I agreed to take one week to test or fix Range 0 (LEX4) gains for those runs. Following the meeting today, Eduardo sent me the list. In response to my questions from last week ("Berrie, I presume this means log ends that frequently show signals several sigma above pedestal, yes? Have you accounted for channel-dependent pedestal noise?"), Sacha replied that the threshold in tbrecon is 50 bins above pedestal, which is more than 5 sigma for even the noisiest channel during the runs he inspected.

*Action:*

2. (Grove) *Review/revise Range 0 (LEX4) gains for epoch of proton study.*

### **Requirements meeting**

**Djannati-Atai**

Arache brought up the issue of scheduling a meeting to coordinate the writing of recon s/w requirements. Meeting could be phone, vrvs, or in person. Because the intent is to write a recon that is global and iterative, meeting must include at least TKR, CAL, Richard, and Toby.

*Action:*

3. (Dubois) *Schedule requirements working meeting.*

### **Progress in France**

**Djannati-Atai**

Arache promised a summary of work in progress in France, along with a list of action items and current issues.

## Schedule

Dubois

The project office requires a schedule and budget covering the next five years at no coarser than 20-day granularity! By next Tuesday! Richard suggested that the CAL s/w review document could be converted to a draft schedule. There will be a DOE programmatic review in Jan 2001.

### Action:

4. (Grove & Djannati-Atai) *Prepare schedule and budget for CAL ground s/w by project office.*

## Open Action Items

1. (Grove) *Get more info on upstream material, beam aperture from GSI.*
2. (Grove) *Generate simple saturation curve from muon, C, and Ni points in a few bars. **First pass done, will repeat.***
3. (Tylka) *Improve interface to dE/dx and partial cross-section routines from CREME96.*
4. (Giebels) *Resolve discrepancy in simulations of MIPs. **In progress.***
5. (Grove) *Study the LEX4 gain "stretching" as a fcn of time. Derive correction factors and new muon gains.*
6. (Terrier?) *Create geometry file for simulation of French mechanical design. **In progress.***
7. (Burnett) *Create a proposal for tracking energy in passive volumes.*
8. (Grove) *Distribute optimized corrections for Run 138.*
9. (Grove) *Review/revise Range 0 (LEX4) gains for epoch of proton study.*
10. (Dubois) *Schedule requirements working meeting.*
11. (Grove & Djannati-Atai) *Prepare schedule and budget for CAL ground s/w by project office.*

## Completed Action Items

1. (Grove) *Review CAL beam test paper goals. **Done.***
2. (Giebels) *Verify our understanding of trigger logic and timing for muon runs in clean room after ESA with Gary Godfrey. **Done.***
3. (Grove) *Fit GSI intlin data. **Done.***
4. (Grove) *Generate simple saturation curve from muon, C, and Ni points in a few bars. **First pass done, will repeat.***
5. (Sandora) *Complete electronic and source calibrations of Test Box crystals. **Done.***
6. (Grove) *Write first version of CAL section of beam test paper. **Done.***
7. (Giebels and Linder) *Simulate run 138 with tbsim. **Done.***

8. (*dCeS*) Distribute list of runs and plots of total energy to calsofilist so we can all play this game of Name That Total Energy. **OBE. We all see the discrepancy.**
9. (*Chekhtman*) Implement switch in *tbrecon*. **Done.**
10. (*Eric and Arache*) Complete the CAL s/w review. **Done.**
11. (*Giebels and Lindner*) Proceed with the two-step gain calibration. **OBE.**
12. (*Grove*) Continue improvement of gain scales in *HEX8* for run 138, incorporating expected signal from simulation. **Done.**
13. (*Terrier*) Derive overall gain scale correction factor for run 138 and do energy recon. **Done.**